

October 7, 2004

Ms. Debbie Dietrich
Director, Office of Emergency Management
United States Environmental Protection Agency
1200 Pennsylvania Avenue
Room 1448
Mail Code 5104A
Ariel Rios North Building
Washington, DC 20460

Dear Ms. Dietrich:

This letter is to request your assistance in resolving ongoing enforcement activity under the Spill Prevention, Control and Countermeasure (SPCC) rule in EPA Region 1 that is contrary to regulation, inconsistent with the express interpretation of at least one other region, and otherwise in conflict with long standing and recognized industry practices and the oil storage containment requirements of many states. Specifically, Region 1 inspectors have been issuing written notices of non-compliance to facilities that do not have bulk storage containment designed with sufficient freeboard for a 25-year, 24-hour storm event. These facilities are being threatened with potential fines in excess of \$25,000 per day.

These Region 1 actions are in direct conflict with the final SPCC rule published on July 17, 2002 (67 Fed. Reg. 47042). The rule does not require use of the 25-year, 24-hour storm event for determining secondary containment freeboard. In fact, EPA specifically stated in the preamble to the final rule that it chose not to promulgate a 25-year, 24-hour storm event standard (67 Fed. Reg. at 47117). The rule simply requires secondary containment to include sufficient freeboard to contain precipitation. The rule does not include a quantitative standard for "sufficient freeboard." Nonetheless, Region 1 has asserted that it intends to utilize the 25-year, 24-hour storm event as the sole acceptable standard in its enforcement of the regulation.

The SPCC regulation is designed and intended to provide facilities with sufficient flexibility to address spill prevention requirements. This includes the requirements for secondary containment for bulk storage containers. Under the rule, facility owners are required to "[c]onstruct all bulk storage container installations so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation". The rule goes on to say, "[d]ikes, containment curbs and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin or holding pond" (40 CFR § 112.8(c)(2)).

The rule, as stated above, does not provide a quantitative standard or definition for “sufficient freeboard.” EPA’s discussion in the preamble indicates, “commenters asked for clarification of the terms ‘sufficient’ and ‘freeboard,’ or of the phrase ‘sufficient freeboard’.” Likewise, several commenters asked for clarification of the Agency’s position that sufficient freeboard would be that which would withstand a 25-year storm event. Two commenters suggested a standard of 110 percent of tank capacity. Other commenters suggested alternatives for the 25-year storm event, such as a 24-hour, 10-year event; or a 24-hour, 25-year event. Another commenter suggested the adequacy of freeboard should be left flexible on a facility-specific basis. (See 67 Fed. Reg. at 47116). EPA decided to *not* define the terms “sufficient”, “freeboard,” or the phrase “sufficient freeboard” in the final rule. Instead, EPA decided that “[t]he proper method of secondary containment is a matter of good engineering practice,” which is left to the discretion of the PE certifying the Plan (67 Fed. Reg. at 47101).

The preamble to the rule states, “[w]hatever method you use to calculate the amount of freeboard that is ‘sufficient’ must be documented in the Plan” (67 Fed. Reg. at 47117). This demonstrates that facilities have discretion in determining the appropriate amount of freeboard to fulfill the requirement. Furthermore, the rule requires a PE to certify that the Plan satisfies the requirements of the rule, including the requirement for sufficient freeboard. The rule specifically allows a PE to make a determination that, in his or her judgment “the Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards” (40 CFR § 112.3(3)(d)(1)(iii)). This gives the facility the flexibility to determine what freeboard is sufficient, as long as the PE certifies the Plan.

A PE utilizing good engineering practice will consider many factors to determine sufficient freeboard, including industry practices and facility-specific factors such as inspection procedures, proximity to navigable waters, natural topography, general housekeeping and maintenance procedures, training of employees, costs, etc. For example, a PE may determine that one facility that conducts only visual inspections of bulk storage containers in close proximity to navigable water may require sufficient freeboard for a large storm event. Likewise, a PE may determine that another facility that utilizes inspections of bulk storage containers that are located at a distance to navigable water that the likelihood of a discharge is minimal may require a relatively small amount of freeboard. The proper basis of secondary containment is a matter of good engineering practice and, as stated in the preamble to the final rule, “in all cases the PE must ensure that his certification represents an exercise of good engineering judgment” (67 Fed. Reg. at 47054).

Historically, many facility owners and PEs have recognized 110 percent containment as an acceptable design criterion for containment plus “sufficient freeboard” under the SPCC regulation. EPA has already acknowledged 110 percent as an acceptable practice in its 1991 Supplemental Cost/Benefit Analysis on secondary containment. In the preamble to the final rule, EPA discussed the 1991 Supplemental Cost/Benefit Analysis and recognized that most facilities already utilized 110 percent containment: **“Facilities were assumed to construct secondary containment systems of impervious soil capable of holding 110 percent of the largest tank. In that analysis, we estimated that 78 percent and 88 percent of the regulated community were already in compliance with these requirements, respectively, and would not be affected by the proposed rule change”** (67 Fed. Reg. at 47103).

In addition, EPA Region 6 has acknowledged 110 percent in its outreach pamphlet, *Information on SPCC Plans*, July 1992, page 21, where the Dike Design Procedure cites 10 percent freeboard as an industry practice. Because EPA did not change the requirements for sufficient freeboard in the July 2002 rule, the Region 6 pamphlet concerning 110 percent should still be applicable.

At least 16 states (FL, GA, IN, MN, NH, NM, NY, OK, RI, SD, WY, OH, ME, IA, SD and CT) have set 110 percent as the secondary containment requirement in State regulations for aboveground storage tanks in oil service. Moreover, some federal agencies recognize 110 percent. A national lab of the DOE, the National Renewable Energy Laboratory, requires 110 percent capacity for storage tanks. Similarly, the Tennessee Valley Authority requires 110 percent.

In addition to being accepted by EPA and many states, 110 percent has been recognized as an acceptable design criterion. *The Thompson Publishing Guide - Aboveground Storage Tank Guide* explains that “good design practice has been to build dikes to 110 percent of that volume [of the largest tank] to allow added capacity for rainwater, snow, ice, fire fighting water or wave action” (section 120.2, page, 55, Secondary Containment). Also, API's D16 Bulletin on the SPCC rule suggests that it is a “good engineering practice” to use 110 percent of the greatest amount of liquid that can be released from the largest tank in the diked area, based on the shell capacity of the largest tank. If more than one tank is located in the dike, the capacity of the diked area shall be calculated after deducting the volume of the tanks, other than the largest tank, below the height of the dike.

The above information demonstrates that 110 percent containment has been accepted by industry, state regulators, and federal authorities (e.g., EPA) as an acceptable design criterion for containment plus “sufficient freeboard” for storage tanks and it has been an accepted practice for more than a decade. However, the final determination of what constitutes secondary containment plus “sufficient freeboard” is a decision for the PE that certifies the SPCC Plan. The rule specifically provides facility owners with the flexibility to utilize “good engineering practice” in fulfilling the SPCC requirements, including the requirement for secondary containment plus “sufficient freeboard.” The enforcement of a quantitative standard such as the 25-year, 24-hour storm event standard for secondary containment plus “sufficient freeboard” is contrary to the express language of the rule and EPA’s own declaration that it has chosen to **not** adopt a quantitative standard.

Given that the SPCC rules do not include a quantitative standard for determining “sufficient freeboard,” before taking any enforcement action EPA must demonstrate why the approach utilized in the certified plan is not “sufficient.” Any enforcement by an EPA region by arbitrarily selecting a 25-year, 24-hour storm event standard without demonstrating that the design basis used by the PE is not sufficient would violate the Administrative Procedure Act (APA), because EPA explicitly renounced this standard in the final SPCC rule. The implementation of such a standard would require notice and comment rulemaking under the APA. Indeed, EPA states in the preamble to the July 2002 final rule that “[s]hould recent and inexpensive information concerning a 25-year, 24-hour storm event for **any part** of the United

States become easily accessible, we will reconsider *proposing* such a standard” (emphasis added) (67 Fed. Reg. at 47117).

EPA should also be mindful of the costs associated with attempting to change the containment requirements to a 25-year, 24-hour storm event standard. This would involve reviewing each and every tank and containment system at every regulated facility. As recognized by EPA in the preamble, the costs associated with simply obtaining 25-year rainfall information could be quite significant for a facility. This is compounded with the fact that this information would have to be applied to every tank and every containment system. When considering that thousands upon thousands of tanks would potentially have to be re-analyzed for proper containment, the costs could be astronomical. Furthermore, there appears to be little or no benefit to taking such an approach to containment, because the requirement for “sufficient freeboard” already exists and, as stated above, API member companies already comply with this requirement.

API would like to point out the recent effort by the Office of Management and Budget (OMB) to address issues associated with past and future risk and economic analyses conducted for regulatory purposes. OMB proposed requiring a cost effectiveness analysis for all major rulemaking for which the primary benefits are improved public health and safety (68 Fed. Reg. 5492). API agrees that both cost effectiveness analyses and cost-benefit analyses are very useful tools in evaluating the consequences of regulatory action, especially environmental regulations such as this. Because there appears to be little or no incremental benefit to a 25-year, 24-hour storm event standard for containment requirements, API believes that EPA should complete a cost effectiveness analysis and a cost-benefit analysis before EPA considers a 25-year, 24-hour storm event standard.

EPA should be mindful of the significant impact that a 25-year, 24-hour storm event standard will have on the small business community. The small business community often relies upon the engineering design of factory-manufactured storage tanks, many of which are built with inherent secondary containment. Those “shop-fabricated” tanks that are constructed with built-in secondary containment are normally designed with containment for 110 percent of the tank volume. The adoption of a 25-year, 24-hour storm event standard will force small businesses to incur significant additional costs associated with evaluating and addressing the containment requirements for these types of tanks that already have secondary containment, as well as for any other bulk storage tanks located at the facility.

In summary, EPA Region 1 is enforcing a secondary containment standard, the 25-year, 24-hour storm event, which was specifically rejected by EPA in the final rule. In the meantime, the continued enforcement of this standard by Region 1 or any other region is an arbitrary exercise of authority in violation of the APA. On the other hand, 110 percent containment has historically been broadly recognized by EPA and industry as an acceptable design criterion in most cases and should not be arbitrarily dismissed by EPA inspectors without sufficient justification. The rule clearly vests the PE with the discretion to determine what is “sufficient freeboard,” based upon good engineering practices. A PE may well conclude that 110 percent containment is sufficient to meet the requirement for secondary containment plus sufficient freeboard. Then again, a PE may determine that the situation warrants containment plus freeboard that is greater or less than 110 percent. In any event, the rule does not define “sufficient freeboard” and leaves this

determination to the PE. Any efforts to enforce a quantitative standard do not withstand scrutiny under the APA.

In order to provide clarity to the regulated community and to address the inconsistency between the regions on this issue, EPA headquarters should submit guidance to all of the regions regarding appropriate measures or procedures for determining the insufficiency of secondary containment before initiating an enforcement action. Such guidance should confirm that arbitrary enforcement of a 25-year, 24-hour storm event standard is inconsistent with the provisions of the SPCC rule. EPA should also seek an immediate stay of any current enforcement actions by Region 1 until this matter is resolved. The 110 percent value should be recognized as an acceptable design criteria, to be used with discretion to account for safety considerations, local meteorological rainfall conditions, height of existing dike wall, stability of dike wall, size of tank/container, tank location, frequency of dike drainage and inspection, material stored in the tank/container (volatilization), and tank integrity. The PE who certifies the SPCC Plan will be able to continue to make the final determination of what freeboard is appropriate for the specific situation.

If you have any questions or comments, or would like to meet with API staff and members on this issue, please contact me by e-mail or at the number above.

Sincerely,

Roger Claff
Senior Environmental Scientist

cc:

Mr. Mark Howard, Oil Program
Mr. Paul Noe, Office of Management and Budget
Robert W. Varney, EPA Regional Administrator, Region 1
Mr. Kevin Bromberg, Small Business Administration